

Claims:

1. A system for enabling users to dynamically configure telephones in a telephone system, comprising:

a switch that directs telephone calls carried between telephones and at least one trunk, said switch including physical and virtual extensions, wherein each physical extension corresponds to a link to a respective telephone and each virtual extension corresponds to a respective user; and

a dynamic configuration module that associates a physical extension of a telephone with a virtual extension input by a user, whereby features associated with the virtual extension input by the user are delivered to the telephone.

2. The system of claim 1, wherein said switch comprises a private branch exchange.

3. The system of claim 1, wherein said switch comprises a central office switch.

4. The system of claim 1, wherein said dynamic configuration module delivers virtual extension configuration data to the telephone.

5. The system of claim 1, wherein said switch supports the features or services delivered to the telephone.

6. The system of claim 1, further comprising a memory coupled to said switch and said dynamic configuration module.

7. The system of claim 6, wherein said memory stores a first group of data including associated physical extensions, ports and phone features.

8. The system of claim 7, wherein said memory stores a second group of data including virtual extensions, user identifiers, phone features, and mapping information, and

wherein said dynamic configuration module sends mapping information to said memory that associates the physical extension of the telephone with the virtual extension input by the user.

9. The system of claim 8, wherein said phone features include at least one selected from the group of call forwarding, voice mail, button-map assignments, conference calling, call waiting, hold, and transfer.

10. The system of claim 1, wherein the telephone includes an input for toggling on and off dynamic configuration of the telephone by a user, and an indicator for indicating whether dynamic configuration is on or off.

11. The system of claim 10, wherein said input comprises a button on a panel of the telephone, and said indicator comprises a visible indicator on the panel.

12. The system of claim 1, wherein said switch further includes a port for enabling an administrator to provision physical and virtual extensions.

13. The system of claim 1, wherein said switch further includes a network port for coupling a VoIP telephone to said switch.

14. The system of claim 1, wherein said dynamic configuration module checks whether the virtual extension input by the user is valid and a password input by the user is valid before associating the physical extension of the telephone with the virtual extension input.

15. A system for enabling users to dynamically configure telephones in a telephone system, comprising:

a switch that couples telephones and at least one trunk, said switch including physical extensions, wherein each physical extension corresponds to a link to a respective telephone; and

a dynamic configuration module that associates a physical extension of a telephone with a physical extension input by a user, whereby features associated with the physical extension input by the user are delivered to the telephone.

16. The system of claim 15, wherein said switch comprises at least one of a private branch exchange and a central office switch.

17. The system of claim 15, further comprising a memory coupled to said switch and said dynamic configuration module.

18. The system of claim 17, wherein said memory stores a first group of data including associated physical extensions, ports and phone features.

19. The system of claim 18, wherein said dynamic configuration module swaps port information stored in said memory so as to associate the physical extension of the telephone with the physical extension input by the user.

20. The system of claim 15, wherein said switch further includes a network port for coupling a VoIP telephone to said switch.

21. In a telephone system having a switch that couples telephones and at least one trunk, the switch including physical and virtual extensions, wherein each physical extension corresponds to a link to a respective telephone and each virtual extension corresponds to a respective user, a method for dynamically configuring a first telephone for use by a first user comprising:

receiving a virtual extension input by the first user through the first telephone; and

associating a physical extension of the first telephone with the input virtual extension, whereby features associated with the input virtual extension are delivered to the first telephone.

22. The method of claim 21, further comprising presenting a first prompt at the first telephone that requests input of the virtual extension.

23. The method of claim 22, further comprising presenting a second prompt at the first telephone that requests input of a password associated with the first user.

24. The method of claim 23, further comprising checking whether the virtual extension input and password input are valid prior to said associating step.

25. The method of claim 23, further comprising illuminating an indicator of the first telephone in response to the physical extension of the first telephone being associated with the input virtual extension.

26. The method of claim 23, further comprising providing phone features associated with the input virtual extension to the first telephone, the provided phone features including at least one phone feature selected from the group of call forwarding, voice mail, button-map assignments, conference calling, call waiting, hold, and transfer.

27. The method of claim 21, further comprising enabling an administrator to provision physical and virtual extensions at the switch.

28. The method of claim 21, further comprising:
receiving an inbound call to the input virtual extension;
looking up a physical port based on the input virtual extension; and
routing the inbound call to the first telephone at the looked up physical port.

29. The method of claim 21, further comprising:
receiving a message relating the input virtual extension; and
processing the message based on stored feature data relating to the input virtual extension;
looking up a physical port associated with the input virtual extension; and
delivering data corresponding to the processed message over the looked up physical port to the first telephone at the looked up physical port.

30. The method of claim 21, further comprising:
receiving at a physical port a signal corresponding to an input entered at the first telephone;
looking up virtual extension feature data associated with the physical data at which the signal was received; and
processing the signal based on the looked up virtual extension feature data.

31. In a telephone system having a switch that couples telephones and at least one trunk, the switch including physical and virtual extensions, wherein each physical extension corresponds to a link to a respective telephone, a method for dynamically configuring a first telephone for use by a first user comprising:

receiving a physical extension input by the first user through the first telephone; and

associating a physical extension of the first telephone with the input physical extension, whereby features associated with the input physical extension are delivered to the first telephone.